Supporting patients with pancreatic cancer

Part One: 11th March 2021, 09.00 – 11.30

#PCUKStudyDay

Prehabilitation and rehabilitation

Kirsty Rowlinson-Groves

Programme Manager GM Prehab4Cancer



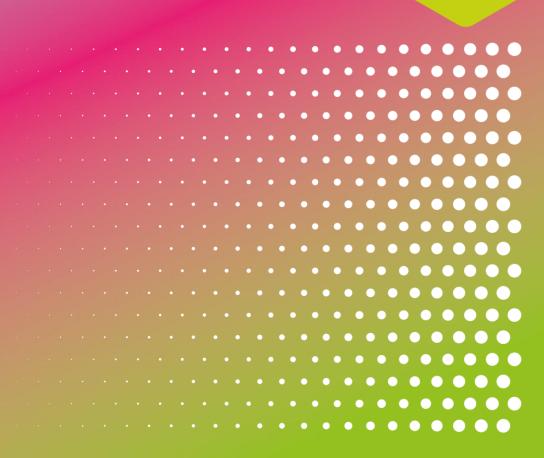






Prehab4Cancer & Recovery Programme: Greater Manchester

Kirsty Rowlinson-Groves
Prehab4Cancer Programme Manager
GM Active



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I often get the urge to exercise. But if I lie down and breathe

slowly, it usually

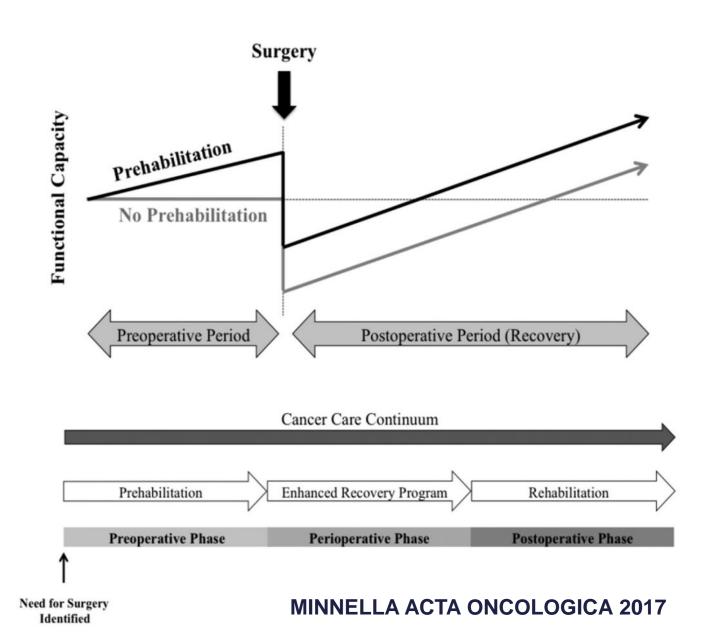
passes.





Prehab

Preparation for planned body stressor



What is Prehabilitation?



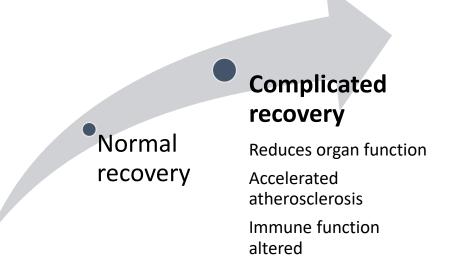
The preparation for the physiological and psychological challenges of cancer treatment

Prehabilitation and rehabilitation are essential for reducing the future needs of people with cancer.

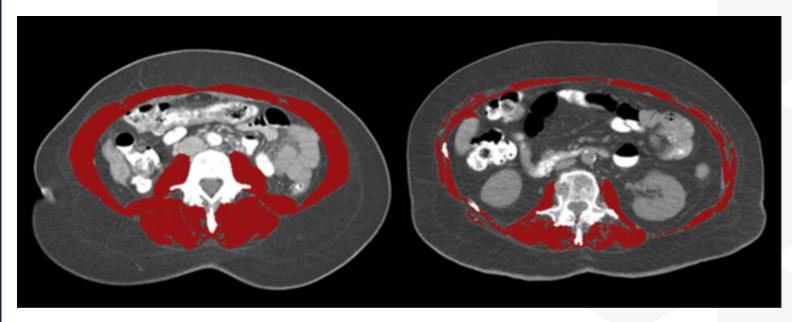
Independent Cancer Taskforce 2015 5-yr Strategy for cancer

Benefits:

- ➤ Shortened recovery
- > Reduce treatment-related complications
- >Improve adherence & completion of treatment
- >Improve quality of life
- >Transition to lifelong habit of physical activity



Sarcopenia



Increased muscle apoptosis and reduced regeneration





Associated with

Poorer chemo response

More post-op complications

Worse outcomes







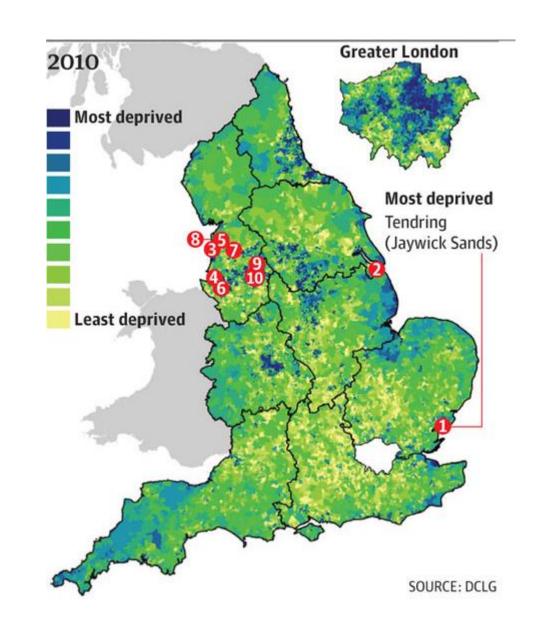
Greater Manchester: 2.8 million people, 500 square miles

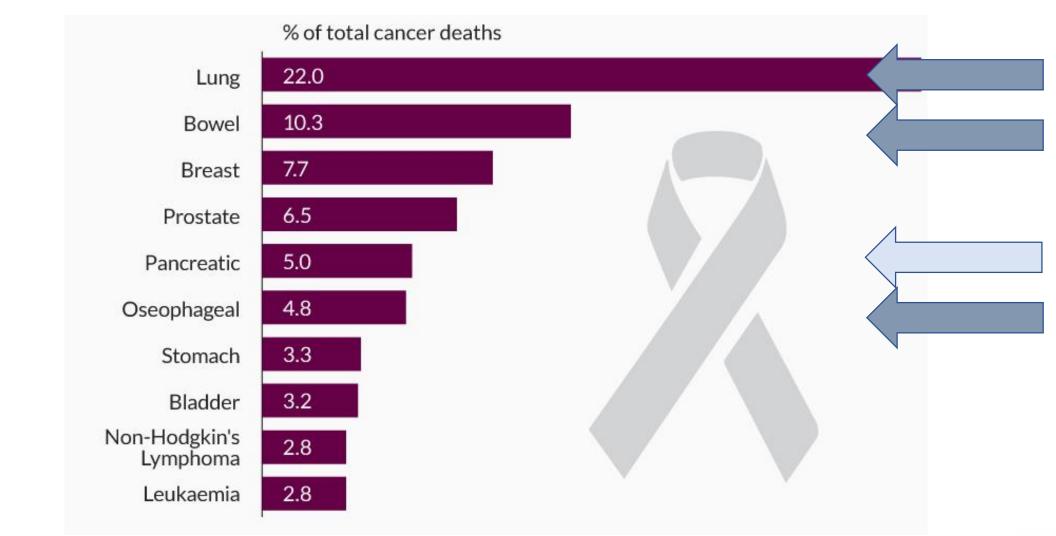
GM health is poorer than the UK average, with more people here suffering heart disease and cancer.

One in five people in Greater Manchester live in the one of country's most disadvantaged areas.

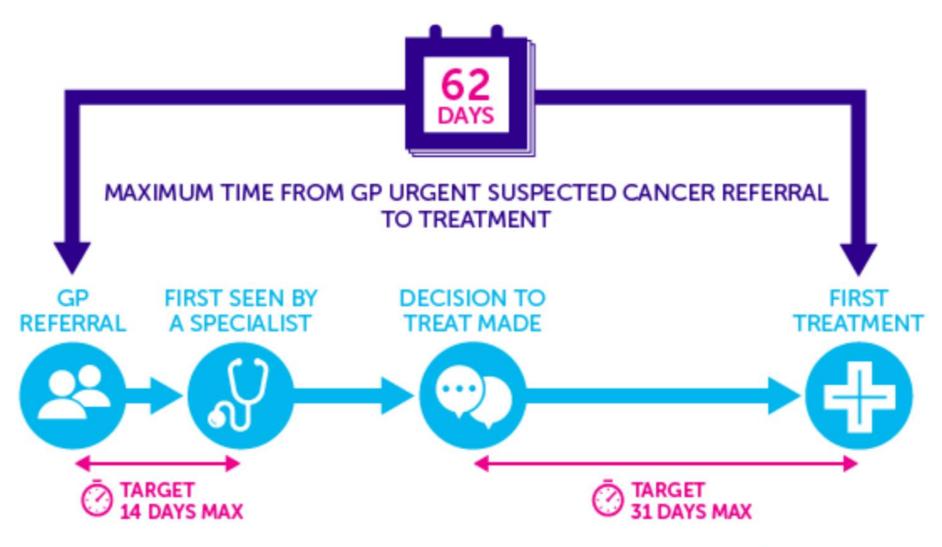
More than two thirds of early deaths in our region are caused by smoking, alcohol dependency, poor diet and air pollution.

'Invisible patients' are more common in deprived areas and present as emergencies with advanced cancers









WE WILL BEAT CANCER SOONER cruk.org







Greater Manchester Cancer







Lung Surgical Pathway

Patient Journey

Surgical Pathway

Refer patients as soon as possible for prehab. If shuttle walk >250m at local hospital refer to prehab immediately

Free gym membership

Nutritional advice

Self-managed exercise prescription

Weekly support aiming for 3x HIT

Possible early stage lung cancer diagnosis Possible surgical candidate Incremental Shuttle Walk

If shuttle walk <250m await CPET prior to prehab referral. inappropriate community exercise teams

decision making

Poor CPET

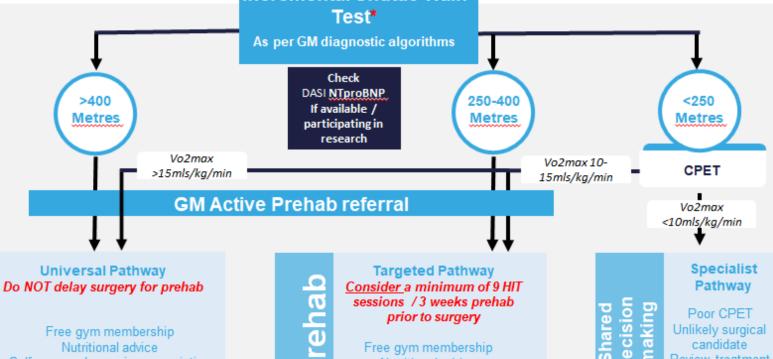
Unlikely surgical

candidate

Review treatment

options

Specialist Prehab



sessions /3 weeks prehab

prior to surgery

Free gym membership

Nutritional advice

Supervised exercise prescription

3x weekly HIIT

Other pathways:

- Oesophago-gastric pathway **Neo-adjuvant chemotherapy**
- Colorectal pathway **Neo-adjuvant chemoradiotherapy**

Funding:

2000 patients prehab and rehab Universal & targeted pathways

Always the ambition of the project to expand to lung oncology patients

Steering group chair – Wendy Makin (Medical Director at the Christie) People affected by cancer

Who we are



Bolton Community Leisure



























Path of least resistance





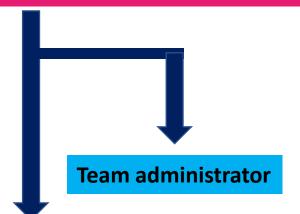
GMACTIVE - Core Team



Programme Manager – Kirsty Rowlinson-Groves









P4C Specialist
Rob Mentha
Wigan &
Stockport

P4C Specialist

Jack Murphy

Salford &

Trafford

P4C Specialist
SJ Hurst
Oldham &
Rochdale

P4C Specialist
Karly Baguley
Bolton &
Bury

P4C Specialist
Ash Rowlands
Manchester &
Tameside



2 x Level 3 Gym Instructors – **Eilish Senior; Stuart Barker; Leanne Thetford**





Level	Group	Assessment	Intervention
1	All the health and social care professionals	Recognition of psychological needs	Effective information giving compassionate communication and general psychological support. Solution focused.
2	Health and social care professionals with additional expertise	Screening for psychological distress	Psychological techniques such as problem solving, fatigue management etc.
3	Trained and accredited professional	Assessed for psychological distress and diagnosis of some psychopathology	Counselling and specific psychological interventions such as anxiety management and solution-focused therapy, delivered according to explicit theoretical framework
4	Mental health specialists	Diagnosis of psychopathology	Specialist psychological and psychiatric interventions such as psychotherapy, including cognitive behavioural therapy (CBT

Nutrition

		Nutritional Risk Category	Risk Alerts	Action
Action Plai	n 1	Low	None Healthy Bmi Stable weight High IDDSI No appetite concerns PGSGA 0-1	 Continuous monitoring General advice leaflet given
Action Plai	n 2	Medium	 One of the Following ≥ 1% weight loss in past fortnight Drop in IDDSI Score Drop in food take to <75% normal PGSGA 2-3 	 Give Diet sheet Raise concern with Clinical team Monitor closely
Action Plan	n 3	High	 One of the following BMI ≤20kg/m2 ≥10% weight loss past 3-6 months Two of the Following ≥5% weight loss in past month Drop in IDDSI Drop in food intake to <75% normal PGSGA 4-8 	 Give high risk diet sheet Highlight concern to CNS/Parent Team and monitor outcome Patient to contact dietician if known P4C team can contact nutrition subgroup lead for advice

Assessment Locations



17 Assessment
Clinics set up and
running across
Greater
Manchester

ROCHDALE **BURY** BOLTON **OLDHAM** WIGAN SALFORD TAMESIDE TRAFFORD STOCKPORT

Each borough of Greater
Manchester hosts 1-3
assessment clinics based
on population make up
and referral numbers

Assessment Clinics
Within 5 miles of
residential postcode
but we also host Adhoc
sessions where needed

Exercise sessions can take place in one of the 80+ GM active leisure centres

Assessment Clinic Overview



Referral Portal 48 Hr Contact Baseline Assessment 4 working days

Post Chemo Upper GI only Pre-Op Assessment Within 5 days Post-Op Assessment 6,8,12 weeks End of Rehab 12 Week intervention

Functional Capacity

- ISWT or 6 Min Walk
- Hand Grip
 Dynamometry
- 1 Minute Sit to stand

Questionnaires

- EQ5D-5L
- IPAQ
- Self Efficacy Scale
- Rockwood Frailty
- PGSGA
- WHODAS 2.0
- EORTCQLQ-C30

Health checks

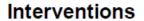
- Blood pressure
- Height
- Weight
- Resting HR
- Oxygen stats
- PG-SGA

Comprehensive Personalised Care Model

All age, whole population approach to Personalised Care

Target populations





Specialist

Integrated Personal Commissioning, including proactive case finding; personalised care and support planning through multidisciplinary teams; personal health budgets and integrated personal budgets.

Plus universal and targeted interventions

Targeted

Proactive case finding and personalised care and support planning through general practice. Support to self manage by increasing patient activation through access to health coaching, peer support and self management education.

Plus universal interventions

Universal

Shared Decision Making.

Enabling choice (e.g. in maternity, elective and end of life care).

Social prescribing and community

connecting roles

Community capacity building.

Outcomes

Empowering people, integrating care and reducing unplanned service use.

Supporting people to build knowledge, skills and confidence and to live well with their health conditions.

Supporting people to stay well and building community resilience, enabling people to make informed decisions and choices when their health changes.

People with complex needs 5%

People with long term physical and mental health conditions 30%

Whole population 100%

Programme Model - Surgical



Prehab up to 12 weeks

Lung

Colorectal

Upper GI

S S E S

M

A

Supervised

- 3 monitored sessions per week
- Intensity/Duration/Mode prescribed by specialist

Universal

- 1-1 session with specialist to prescribe exercise programme
- Weekly progress updates
- Independent exercise at local leisure centre

S U R G E R

B R E A K

Rehab 12 weeks

Post Surgery update

- Contact 4 6 weeks post
- Establish plan of action for commencing rehab with Post Op Assessment

Patient centred Rehab

- 12 week pass to local gym
- Prescribed exercise programme and supported sessions with specialist
- Signposted to local community activities to promote long term exercise adherence and improvement of health
- Positive exit strategy

Lung Cancer Prehab Pathway

Patient Journey

Lung cancer with curative intent treatment options including surgical resection and curative intent oncology treatments (SABR, radical radiotherapy chemoradiotherapy)

AND:

- Performance status 0-2
- 2. Clinical frailty score ≤5
- 3. Consultant assessment to confirm suitability for prehab



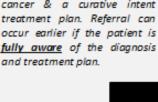
Include any hospital-based functional testing results with the referral

patients as early as possible in the pathway, once patient has been informed of the diagnosis of cancer*

Refer eligible

Online Prehab4cancer referral

Provide prehab4cancer leaflet and signpost to website www.prehab4cancer.co.uk



*The point of referral is ideally

after MDT discussion with a

confirmed diagnosis of lung

Including functional assessment e.g. shuttle walk test, 6MWT



Prehab4cancer assessment clinic

or sit-stand test to help determine prehab pathway**

Universal Pathway Do NOT delay treatment for prehab

Free gym membership/home ex. Programme (HEP) Nutritional advice/Wellbeing support Self-managed exercise prescription Weekly support aiming for 3x HIT

Targeted Pathway

Consider a minimum of 9 HIT sessions / 3 weeks prehab priorto treatment

Free gym membership/HEP Nutritional advice/wellbeing support Supervised exercise prescription 3x weekly HIIT

Not suitable for community prehab

Refer back to hospital team Consider specialist prehab if available

July 2020

Request from Prehab4cancer steering group & patient representatives:

To expand the prehab4cancer lung pathway to oncology patients.

Recognise:

- Still need to be realistic within funding envelope
- Ensure a considered approach to patient selection
- Any concerns from oncology community:
 - > Activity during treatment process
 - Communication between oncology team and P4C team

Lung Prehab4cancer Sub-group

- Agreement to expand programme
- New pathway developed and agreed
- Consultation process with lung oncology team
- Strong support from patient representatives
- Recognition of the opportunity to provide real-life data in this developing field + greater need because of COVID-19

Exercise Prescription



Pre-Treatment

Progressive/Continuous

- Steady State CV (40-70% Max Hr)
- Progressing intensity based on HR & RPE
- MSE combat sarcopenia
- 3x weekly sessions

Re-HIIT

Interval type exercise

m

- Work : Active Recovery (60-80+ Max Hr)
- RPE & HR monitoring
- MSE combat sarcopenia
- 3x weekly sessions

During treatment

- No expectation or target number of sessions
- Patients receive support contact calls from specialists with advice and education around fatigue management
- Offer of supporting patient to maintain some level of activity
- Any pre prescribed programme is adjust for frequency, intensity & duration to accommodate treatment
- Constantly adaptived programming throughout treatment

Rehab 12 weeks

Post Treatment update

 Establish plan of action for commencing rehab with Post treatment Assessment

Patient centred Rehab

- 12 week programme
- Prescribed exercise programme and supported sessions with specialist
- Progressive programme to help build patients functional capacity.
- Focus on patients aims and goals
- Motivational and behaviour change strategies used to build long-term adherence



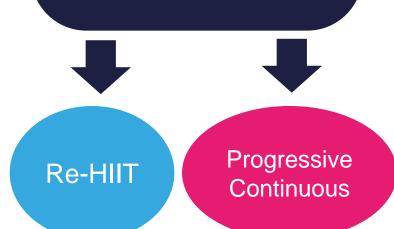
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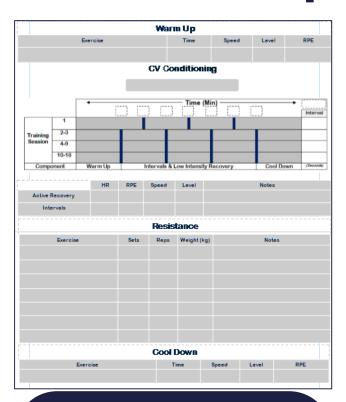
Exercise Prescription

PREHAB
4 CANCER
GREATER MANCHESTER

Wellbeing

The screening process during the assessment clinic determines the exercise format and prescription, taking into account associated comorbidities and potential risk factors





Exercise Time HR RPE Level Speed Notes | Resistance | France | Fr

Warm Up

Re-HIIT

- Interval type exercise
- Work : Active Recovery
- RPE & HR monitoring
- MSE combat sarcopenia
- 3x weekly sessions

Progressive/Continuous

- Steady State CV
- Progressing intensity based on HR & RPE
- MSE combat sarcopenia
- 3x weekly sessions



Remote Service Delivery (COVID)

Referrals continued throughout lockdown. Referral form updated to include Blood Pressure, Resting Heart Rate and O2 Sats



Patients contacted >48 hours from referral, telephone/video call initial assessment



- Personalised Home Exercise Pack sent via e-mail or post incl. resistance bands
- 2x a week tel/video call exercise sessions (Targeted 40%), 1x a week tel/video call exercise sessions (Universal 60%)
- Intervention videos available via YouTube, Live exercise session timetable, Digital Heart Rate
 Monitors (MyZone) supporting assessment + adherence
 - Over 500 patients have accessed remoteservice
 - 50:50 Prehab to Rehab

Co-design to plan for safe return to face to face assessment clinics & exercise sessions

Assessment Overview

Telephone or Video Calls



Referral Portal 48 Hr Contact Baseline Assessment 4 working days Pre-treatment Assessment Within 2 days Post-Op Treatment 2,4 weeks End of Rehab 12 Week intervention

Functional Capacity

During remote delivery

only STS

- 1 Minute Sit to stand
- ISWT or 6 Min Walk
- Hand Grip Dynamometry

Questionnaires

- EQ5D-5L
- IPAQ
- Self Efficacy Scale
- Rockwood Frailty
- WHODAS 2.0
- EORTCQLQ-C30

Health checks
Requesting from referrers during
remote delivery

- Blood pressure
- Height
- Weight
- Resting HR
- Oxygen stats
- PG-SGA



Cardiovascular



Standing Marching

Cardiovascular Exercise Improves health of heart & lungs

Equipment Required: Chair for support

Description: March on the spot, with arms pumping, for the advised amount of time. Alternate your steps. Use support if needed (have a chair in front of you)

Duration	Sets		Repetitions				
Rate of Perceived Exertion Log							
Notes							



Side Steps

Cardiovascular Exercise Improves health of heart & lungs

Equipment Required: Chair

Description: Stand tall with your feet shoulder width apart.

Take a comfortable step out to the side with one leg and then bring the other leg to meet it shoulder width apart. Repeat to the other side.

Duration		Sets		Repetitions			
Rate of Perceived Exertion Log							
Notes							

GMACTIVE

NHS in Greater Manchester





Monitoring

EXERCISE INTENSITY

Throughout your home exercise guide, you will notice a section titled "Rate of Perceived Exertion Log". The Rate of Perceived exertion or RPE, is simply how the exercise feels whilst you are performing it. In this section, please record a number that you feel represents the intensity of the exercise based on the prescription provided to you by your exercise specialist, "Record how difficult you thought the exercise was"

Monitoring your RPE (how you feel whilst you are exercising is an essential tool for your exercise specialist to gauge your progress, so please make every effort to complete this section so that you can feedback the information to the specialist.

Please complete the RPE log with a value that corresponds to the table below.

If you have any trouble with the exercises then please record this in the notes section. GMACTIVE



02

Upper Body



Bicep Curl Bicep and brachialis strengthening exercise

Equipment Required: Resistance Band /

Description: Anchor band under foot. Lift to shoulders, keep elbows tucked in, slowly return to the start & repeat

Aids lifting and carrying ability

Duration		Sets		Repetitions		
Rate of Perceived Exertion Log						
Notes						



Tricep Extensions Deltoid strengthening exercise

Aids lifting ability

Equipment Required: Resistance Band

Description: Position your hands close together and in front of your chest with your elbows raised out to your sides. Slowly extended arms out to your sides. Keep the stretched band at chest level. Hold for 2-3 seconds and slowly return to start position

Duration		Se	Sets		Repetitions	
	Rate	f Perceiv	ed Exertic	n Log		
Notes						
M	TIVE				Λ	
AC	IIVE			in Cross	or Manche	

23



The Myzone Live Display provides instant effort feedback.

Compete with friends and other club members by earning MEPs, and see real- time feedback using the easy-to-read Live Tile.



MEPs (Myzone Effort Points)

are a credible metric to measure intensity based physical activity.













Online Live Classes

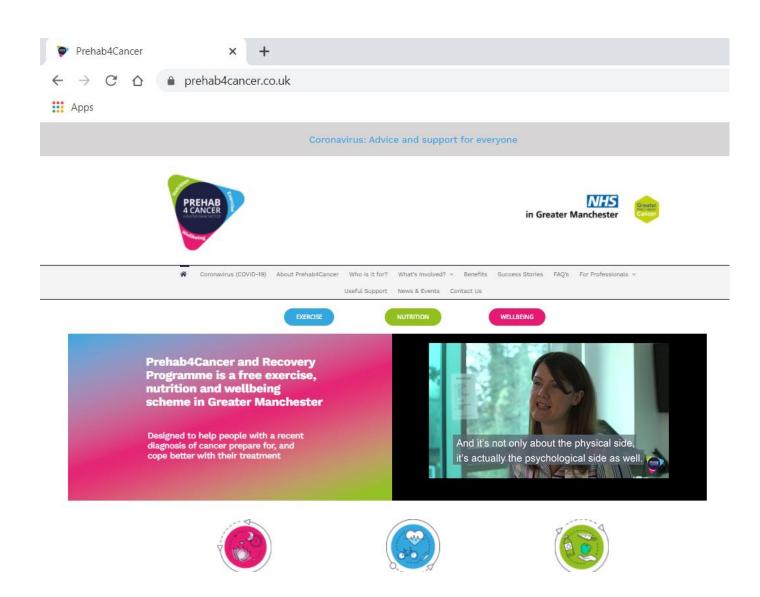




DAY	<u> </u>	<u>MONDAY</u>	<u>TUESDAY</u>	<u>WEDNESDAY</u>	<u>THURSDAY</u>	<u>FRIDAY</u>	<u>SATURDAY</u>
SUNRI	ISE		7-7:30am Rise & Shine Level 1-3				
MORNI All mori classes be 10:30-11:	ning egin at	Gentle Circuit (Level 1-2 Class) Circuit Class (Level 2-3 class)		Resistance Training Class (Level 1-3 Class)	Strength & Balance Class (Level 1-3 Class)	Gentle Circuit (Level 1-2 Class) Circuit Class (Level 2-3 Class)	9:30am Work out of the day Level 1-3
AFTERNO All Afteri classes be 1:30-2:1	noon egin at	CORE Class (Level 2-3 Class)	Seated Tai Chi (Level 1-3 Class)	<u>Cardio Blast</u> (Level 2-3 Class)		Stretch & Flex (Level 2-3 Class)	
EVENII 6:30p				Circuit 4 All (Level 1-3 Class)			



www.prehab4cancer.co.uk





Prehab advice for non-eligible patients

Here are some exercises that are safe to try at home.

Try to complete them 3 times a week.

Arm Curls

Stand or sit in a chair.
With your arms by your sides with your palms facing forwards and bend your elbow. If you find this easy you could do the exercise holding a tin of food or water bottle or a weight to make it more difficult.



Aim to repeat this 5

Arm Raises

Stand or sit in a chair.
Lift both arms together,
up above your head and
then out in front of you.
If you find this easy you
could do the exercise
holding a tin of food or
water bottle to make it
more difficult.



Aim to repeat this times

Sit to stand from a chair

Put your arms across your chest, stand up from the chair and then sit down again slowly. If you feel too unsteady doing this, then don't cross your arms and lightly use your arms to push up.



Aim to repeat this 5 times

Mini Squats

In standing, hold onto
the back of a chair or
firm surface. Keep your
feet hip width apart.
Slowly bend your knees
as far as you feel
comfortable, keeping you
back as straight as
possible. Hold for 2
seconds and then
straighten your knees,
squeezing your bottom
muscles and thigh
muscles as you do.



Aim to repeat this times

Marching on the spot

Whilst standing is best, but you can complete this in sitting if you feel unsteady. March on the spot for 30 seconds. Rest for 30 seconds. If you find this easy, bring your knees up higher while you're marching.





Aim to repeat this 3

Once you are able to manage these exercises more easily, then you could gradually increase the number of times/the time you spend doing each of the exercises

Please consult a healthcare professional involved in your care if you have any concerns regarding activities or exercises on this website. When undergoing chemotherapy, radiotherapy, surgery or any other treatment for cancer, you may be given specific advice on which activities you may or may not do when undergoing your treatment, and it is important to follow this advice.

Launched April 2019....

Over 1000 patients referred in first year

80% participation rate

94% uptake rate from initial assessment

100% patients accessing service locally

Participants are showing clinical significant improvement in fitness during prehab phase & improved recovery post-surgery. Nutritional status is maintained.

Participants demonstrate improved confidence, motivation, sense of control & overall patient experience

⁴ CANCER CRAFFINDACTISTIES

Settlement

Se



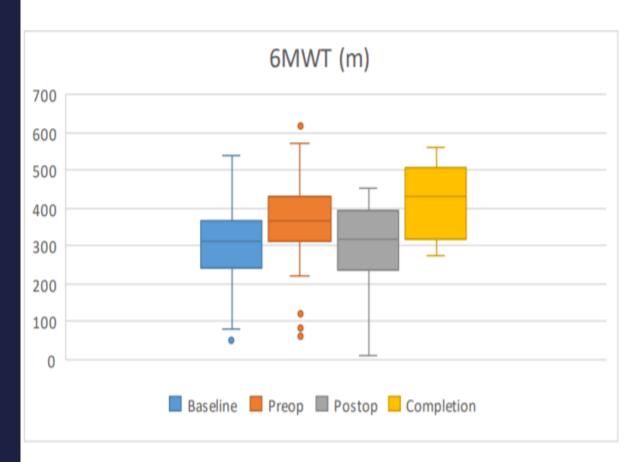
^{*} anecdotal from HCPs across GM & through participant focus groups

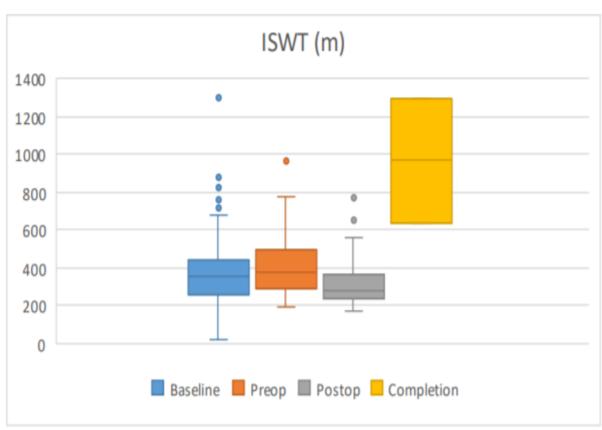
	Baseline	Pre-operative	Difference			
Physiological assessments						
Weight (kg)	72.1 (60.0-83.9)	70.8 (60.6-82.0)	-1.3			
BMI (kg/m²)	26.2 (22.8-29.3)	25.5 (22.8-28.7)	-0.7			
Sit to Stand (reps/min)	19 (12-22)	22 (17-27)	+3 (improved LL strength)			
Hand grip (kg)	22.7 (18.7-31.1)	23.2 (18.8-31.0)	+0.5 (improved UL strength)			
6MWT (m)	310 (232-360)	365 (319-430)	+55 (stat. significance)			
ISWT (m)	350 (260-440)	380 (290-490)	+30 (stat. significance)			
Survey assessments						
WHODAS	5 (2-10)	3 (1-7)				
Self-efficacy scale for exercise	66 (49-77)	74 (63-81)	and the state of t			
EQ-5D and EORTC QLQ-C30 also collected PREHAB 4 CANAGE PREHAB						

LUNG COHORT OUTCOMES

Physiological assessments (walk tests)







Six Minute Walk Test (6MWT) – frail, older patients or those contraindicated for the ISWT.

Incremental Shuttle Walk Test (ISWT) – standard ax. within lung pathway, bleep test

Summary



- Prehab4cancer is a unique achievement & a national exemplar
 - **➤ Whole-system prehabilitation & rehabilitation**
 - > Tackles Inequalities
 - > Resilient (comprehensive leisure sector infrastructure)
 - ➤ Sustainable: blend of F2F & remote service delivery model
 - > Value for money: leads to efficiency within the pathway reduced time in hospital
 - > Effective: proven excellent uptake, impact and patient experience
 - > Real-world evidence
- Whilst covid-19 has resulted in negative impacts in lung cancer, it also has presented opportunities for the P4C team
- Opportunity to extend the benefits of this programme to lung oncology patients
 & once again be a leader in this field





"When I first went I thought, what the bloody hell am I What would you say doing here, I must be mad"

"Having a diagnosis of a life threatening

illness made me the programme? ill I feel really well" feel I had to do it"

"Surgeons said I had to get fitter

and put weight on or I would be

dead, so it was a no brainer!"

programme may ... think about my health" "Gym can feel intimidating so went as a group the first time"

"I'm in a better position for treatment"

"It's had a positive impact on my post op complications"

"I was told we're going to get you fitter to "Mentally it has done us get you out of hospital quicker, that was "Trainer gives us confidence" really well. It gets you out of the house. Seeing the all the motivation I needed"

want to take part?

to someone else who

was just starting on

How did you feel it went, what did you enjoy,

was it better or worse than you expected, were

you surprised and was there anything you "The gym didn't like? gave me a focus "I was very weak

who'd not been through the programme "I see this as part of my "It's helping treatment"

"Going to the sessions

gave me confidence and

"It was great that there were 3 different gyms available for me to use"

"People in hospital at the same time as me

struggled to get out of bed"

including 'don't do too much'!"

trainer took it slowly" "Prehab helped "The advice was well balanced, me to leave

hospital early"

after the op – the

to cope with cancer and the treatment"

"I was better able

"I had no doubts about taking part, How did you feel about coming back the trainer to the Rehab phase? knew her

and I felt in control"

stuff"

Has prehab had helped you during and after treatment?

frightened

same people in the group

for prehab I wouldn't have been able

to have the op - I failed the

"Do it – don't be

shuttle test"

was good for me"

If you weren't offered prehab would you have gone to the gym?

"prehab better than

"It was important the health centre was near to where I live"

expected" "Do it at your own pace"

"I had to lose weight or they wouldn't give me the operation"

"I feel stronger and have less fatigue" One person responded yes, the rest said no!

> "Getting the phone call from the trainer was important as I had enough appointments to go to."

me with my

chemo - I

come the day

before I have

chemo and I

feel better"

"I didn't need any convincing to go once I'd been told about how it would impact my treatment and recovery"

"Tailoring the program to my needs important - giving me home exercises"

Greate





















ACKNOWLEDGEMENTS









York
Middlesbrough
Sheffield
Scotland











Principles and guidance for prehabilitation within the management and support of

In partnership w

reraditions RC





TheAHSNNetwork





Greater Manchester Cancer









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